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## Fifth Semester B.E. Degree Examination, June/July 2019 Marine Auxiliary Machines – I

Time: 3 hrs.

Max. Marks: 80

Note: Answer any FIVE full questions, choosing ONE full question from each module.

### Module-1

- 1 a. Explain briefly about the bunkering procedure. (08 Marks)  
b. Write the colour coding for Fuel oil, Lube oil, Fresh water, air and seawater. (08 Marks)

OR

- 2 a. write short notes on :  
i) Ballasting (08 Marks)  
ii) De-Ballasting. (08 Marks)  
b. Explain briefly about hydrophore system. (08 Marks)

### Module-2

- 3 a. Explain briefly about the butterfly valve and quick closing valve. (10 Marks)  
b. Write about strainers and filters used on board. (06 Marks)

OR

- 4 a. Explain the following valves :  
i) Pressure reducing valve  
ii) Relief valve. (10 marks)  
b. Write short notes on :  
i) Magnetic filter  
ii) Rotary filter  
iii) Fine filter. (06 Marks)

### Module-3

- 5 a. Explain briefly about :  
i) Centrifugal pump (10 marks)  
ii) Screw pump. (06 marks)  
b. Explain care and maintenance of pump to be taken on board.

OR

- 6 a. Explain briefly about reciprocating pump. (08 marks)  
b. Explain briefly about diaphragm pump. (08 Marks)

### Module-4

- 7 a. Explain briefly about two stage air compressors. (08 Marks)  
b. Explain reverse Osmosis desalination plant. (08 Marks)

OR

- 8 a. Explain shell type heat exchanger. (08 marks)  
b. Explain tube type heat exchanger. (08 Marks)

### Module-5

- 9 a. Explain briefly about the hydraulic telemotor system. (08 marks)  
b. Explain steering system regulation and testing. (03 marks)

OR

- 10 a. Explain briefly about the emergency steering gear operation. (08 marks)  
b. Define steering system and its types. (08 Marks)

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